

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:

Source

Date Processed by STIC:

0/605,708

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221

Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

- 1. EFS-Bio (http://www.uspto.gov/ebc/efs/downloads/documents.htm, EFS Submission User Manual ePAVE)
- 2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
- Hand Carry directly to (EFFECTIVE 12/0N03):
 U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
- Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03

•	10// 05 700										
ERROR DETECTED	SUGGESTED CORRECTION SERIAL NUMBER: 1965, 108										
ATTN: NEW RULES CASES	: PLEASE DISPEGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE										
Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."										
2Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.										
3 Misaligned Amino Numbering	The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.										
4Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.										
5Variable Length	Sequence(s)contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.										
6Patentin 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.										
7Skipped Sequences (OLD RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped										
	Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.										
8Skipped Sequences (NEW RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000										
9Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.										
10Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence										
11Use of <220>	Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 00701/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)										
Patentln 2.0 "bug"	Please do not use "Copy to Disk" function of Patentln version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.										
Misuse of n/Xaa	"n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid										



IFWO .

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RAW SEQUENCE LISTING
                                                                DATE: 03/25/2004
                      PATENT APPLICATION: US/10/605,708
                                                                TIME: 09:07:31
                      Input Set : D:\GLOF007USC1.txt
                      Output Set: N:\CRF4\03252004\J605708.raw
      1 <110> APPLICANT: GONG, Zhiyuan
             LAM, Toong Jin
              JU, Bensheng
             · XU, Yanfei
              HE, Jiangyan
              YAN, Tie
      8 <120> TITLE OF INVENTION: CHIMERIC GENE CONSTRUCTS FOR GENERATION OF
              FLUORESCENT TRANSGENIC ORNAMENTAL FISH
     11 <130> FILE REFERENCE: 1781-0163P
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/605,708
C<sub>T/</sub>> 14 <141> CURRENT FILING DATE: 2003-10-21
  ⇒ 17 <160> NUMBER OF SEQ ID NOS: 24
     19 <170> SOFTWARE: PatentIn Ver. 2.0
                                                            Does Not Comply
                                                            Corrected Diskette Needed

(P5, 1-5)
ERRORED SEQUENCES
     21 <210> SEQ ID NO: 1
     22 <211> LENGTH: 2480
     23 <212> TYPE: DNA
     24 <213> ORGANISM: Danio rerio
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     27 <221> NAME/KEY: CDS
     28 <222> LOCATION: (90)..(1586)
     30 <220> FEATURE:
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     33 <223> OTHER INFORMATION: CK2
     35 <220> FEATURE:
W--> 36 <221> NAME/KEY: primer bind
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     45 ctctcctttg tgagcaacct cctccactca ctcctctctc agagagcact ctcgtacctc
     46 cttctcagca actcaaagac acaggcatc atg tca acc agg tct atc tct tac
                                     Met Ser Thr Arg Ser Ile Ser Tyr
     47
     48
                                       1
                                                            K please see item#

** please see item#

** please see item#

** sheet.
     50 tcc age ggt ggc tcc atc agg agg ggc tac acc agc cag tca gcc tat
     51 Ser Ser Gly Gly Ser Ile Arg Gly Tyr Thy Ser Gln Ser Ala Tyr
                                                  30 ZO
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/605,708

DATE: 03/25/2004 TIME: 09:07:31

Input Set : D:\GLOF007USC1.txt

1					ouc	puc		-11.	, O. u.	- (002		, , , , ,	,,,,,		•••				
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) 		25	Val	110	111.0	OLY	30	1111	11119	1100	001	35	• • • • • • • • • • • • • • • • • • • •		001		40		
(4>			tct	aat	ata	aat		age	cca	ggc	ttc	-	acc	aat	aac	agc		257	•
N.	59	Ara	Ser	Glv	Val	Glv	Ala	Ser	Pro.	Gly	Phe	Glv	Ala	Glv	Glv	Ser	Tvr		
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							aαc	atα	aat	gga		tat	aga	agt	aat		aat	305	
Ø.										Gly									
W>	65	дда	aat	ctc	GQ.	aga	aac	ato	aac	Ett	cat	tac	aaa	ctt	350	atc	aca	353	
., ,	66	Glv	Glv	Leu	Glv	Glv	Glv	Met	Glv	Phe	Arg	Cys	Glv	Leu	Pro	Ile	Thr		
W>		2		75		-	_		80		_	-	-	85					
		qct	gta	act	gtc	aac	cag	aac	ctg	ttg	gcc	ccc	tta	aac	ctg	gaa	atc	401	10
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W>			90				,	95					100						Invalia Mucles
E>	73	gac	ccc	aca	att	caa	des.	gtc	cgc	act	tca	gag	aaa	gag	cag	att	aag	449	MULIC
	74	Āsp	Pro	Thr	Ile	Gln	Aľa	Val	Arg	Thr	Ser	Glu	Lys	Glu	Gln	Ile	Lys		COV
M>							110	بر	Inv	Alid		115	/1/	Jcle	otic	u	120		- 6.00
E>							ttc	g ⊕t	ttc	ctc	atc	gac	aaa	gtg	cgc	ttc	ctg	497	2
	78	Thr	Phe	Asn	Asn	Arg	Phe	Ala	Phe	Leu	Ile					Phe	Leu		
M>				٠	•	125					130		•			135			
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		Glu	Gln.	Gln		Lys	Met	Leu	Glu		ГÀг	Trp	Ser	Leū		Glņ	Glu		
M>				•	140			.*	*	145					150				
										gat								593	
		Gln	Thr		Thr	Arg	Ser	Asn		Asp	Ala	Met	Phe		Ala	Туŗ	He		
W>				155	1	٠	-	. •	160					165				C 4 1	
										gga								641	
		Ser		Leu	Arg	Arg				Gly				GIU	гÀг	мет	ьуs		ě
W>			170					175		,				~~~	~~~	++0	224	689	
										cag								009	
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																	s Val		
W>			,		220		-1-	1		225	5	-SA	me	en	W230	ງ ົ			
E>			ctt	. gaa			r ati	ga:	t dê			_					ctc	833	
	106	Glu	Let	ı Ğlı	ı Ala	a Lys	. Val	L Ası	o Ala	a Lei	ı Glr	n Asp	o Gli	ı Ile	e Ası	n Phe	e Leu		
W>				235		-		_	24		-SAV	W E	m	-24	5				
E>	109	ago	gea	gto	tac	gag	g ga®it	gaa	a ct	c cgg	ggag	cto	cag	tc1	t ca	gate	aag.	881	
	110) Arc	, Āla	a Val	l Tyr	c Glu	ı Ala	a Glı	ı Le	u Ar	g Glı	ı Leı	ı Glr	n Sei	Glı	n Ile	e Lys		
W>	111	_	250) .	•			25!	5				260)					
	113	gac	aca	a tct	gtt	gtt	gta	a gaa	a ato	g gad	c aad	c ago	aga	aaa	ct	g gat	atg	929	
	114	Asp	Thr	: Sei	r Val	L Val	L Val	L Glı	ו Me	t Asp	Ası	n Sei	c Arc	g Ası	ı Lei	ı Ası) Met		7 .
W>						٠ 👡	270				~						280		
E>																		977	
	118	3 Asp	Ser	: Ile	e Val	L Ala	a Glu	ı Vai	l Ar	g Ala	a Glr	ı Tyı	f Glu	ı Ası	o Ile	e Ala	a Asn		
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DATE: 03/25/2004 RAW SEQUENCE LISTING TIME: 09:07:31 PATENT APPLICATION: US/10/605,708 Input Set : D:\GLOF007USC1.txt Output Set: N:\CRF4\03252004\J605708.raw 290 W--> 119 285 1025 121 cgc agc cgt gcc gag gca gag agc tgg tac aaa cag aag ttt gag gag 122 Arg Ser Arg Ala Glu Ala Glu Ser Trp Tyr Lys Gln Lys Pho Glu Glu W--> 123 300 300 SAML PIN 305 305 310 310 310 E--> 125 atg cag agc acc get ggt cag tat ggt gat gac ctc cgc tca aca aag 1073 126 Met Gln Ser Thr Ala Gly Gln Tyr Gly Asp Asp Leu Arg Ser Thr Lys W--> 127 315 315 CAMPLINU 320 320 325 325 E--> 129 gct gag att get gaa ctc aac cgc atg atc gcc cgc ctg cag aac gag W--> 130 Ala Glu Ile Ala Glu Leu Asn Arg Met Ile Ala Arg Leu Gin Asn Glu W--> 131 320 530 335 335 340 340 338 333 E--> 133 atc gat get gtc aag gca cag cgt gcc aac ttg gag got cag att get W--> 134 Ile Asp Ala Val Lys Ala (Gin) Arg Ala Asn Leu Glu Ala W--> 135 345 345 INALIC KOFILL 350 350 355 255 E--> 137 gag get gaa gag cgt gga gag ctg gca gtg aag gat gcc aag ctc cgc 138 Glu Ala Glu Glu Arg Gly Glu Leu Ala Val Lys Asp Ala Lys Leu Arg
139 360 370 375 w--> 139 *30*0 E--> 141 atc agg gag ctg gag gaa get ctt cag agg gcc aag caa gac atg gcc W--> 142 Ile Arg Glu Lew Glu Glu Ala Leu Gln Arg Ala Lys Gin Asp Met Ala W--> 143 365 365 390 370 1265 E--> 145 cgc cag gtc cgc gag tac cag gag ctc atg aac gtc aaa ttg cet 1313 146 Arg Gln Val Arg Glu Tyr Gln Gly Leu Met Asn Val Lys Leu Ala Leu
147 395 375 400 400 405 705 149 gac att gag atc gcc acc tac agg aaa ctg ttg gaa gga gag gag agc 1361 150 Asp Ile Glu Ile Ala Thr Tyr Arg Lys Leu Leu Glu Gly Glu Glu Ser

151 410 40 40 415 415 415 416 420 420 425 4/5 41/0 410 E--> 153 aga ctg tcc agc ggt gga gct caa got acc att cat gtt gag pag acc 1409 W--> 154 Arg Leu Ser Ser Gly Gly Ala Gin Ala Thr Ile His Val Gin Gin W--> 155 425 425 425 157 t'cc gga ggt gtt tca tct ggt tat ggt ggt agc ggc tct ggt ttc ggc 1457 158 Ser Gly Gly Val Ser Ser Gly Tyr Gly Gly Ser Gly Ser Gly Phe
159 470 480 459 W--> 159 445 41505 162 Tyr Ser Ser Gly Phe Ser Ser Gly Gly Ser Gly Tyr Gly Ser Gly
163 460 40 470 470 165 gga ttc ggt tct gga tca ggg tat ggt gga ggc tcc atc agc aaa acc 1553 166 Gly Phe Gly Ser Gly Ser Gly Tyr Gly Gly Gly Ser Ile Ser Lys Thr
167 475475 486470 48545 169 agt gtc acc acc gtc agc agt ada cgc tat taa ggagaagccc gcccaaaccc 1606 170 Ser Val Thr Thr Val Ser Ser Lys Arg Tyr 496 490 W--> 171 173 ccagccgaca cagtttccaa ccttccttac ctgcaactag atcccttctg aaccttctta 1666 175 cgactcaaac/catctatggt gctatatttt agccagacag ctgtcccctg ttaatgagga 1726 177 gatgtggacg atgatttta aagtacaaaa taagttttag attgttctgt gtgttgatgg 1786 179 tagttacccg tatcatgcat ctcctgtctg gtggtgtcac tgccatttta aatcatcaac 1846 181 ccaactacac taaaacgata ccaggaagaa tcgtgctcca agccactgaa tagtcttatt 1906 183 tctgcactga tatgtacagg gaaagtgaga cacatagaaa ccactgtaac ctacgtagta 1966 185 ctatggtttc actggatcag gggtgtgcta tacaagttcc tgaatgtctt gtttgaatgt 2026 187 tttgtgctgt tacaagctcc ctgctgtagt tttgctgact aatctgactt ttgtcatttt 2086 189 gctatggctg tcagagttgg tttacctatt ttctataaaa tgtatatggc agtcagccaa 2146 RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/605,708

DATE: 03/25/2004
TIME: 09:07:31

Input Set : D:\GLOF007USC1.txt

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191 taactgatga caattgcttg tgggctacta atgtccagtt acctcacatt caagggagat 2206
193 ctqttacagc aaaaaacagg cacaatggga tttatgtgga ccatccctcc ttaaccttgt 2266
195 gtactttccg tgttggaagt ggtgactgta ctgccttaca cattcccctg tattcaactg 2326
197 gcttccagag catattttac atccccggtt ataaatggaa aatgcaagaa aactgaaaca 2386
199 atgttcaacc agatttattt ggtattgatt gacgagacac caacttgaaa tttgaataca 2446
201 ataaatctga gaccacaaaa aaaaaaaaaa aaaa
204 <210> SEQ ID NO: 2
205 <211> LENGTH: (498)—Found 484
206 <212> TYPE: PRT
207 <213> ORGANISM: Danio rerio
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210 Met Ser Thr Arg Ser Ile Ser Tyr Ser Ser Gly Gly Ser Ile Arg Arg
                                          10
213 Gly Tyr Thr Ser Gln Ser Ala Tyr Ala Val Pro Ala Gly Ser Thr Arg
214
                 20
216 Met Ser Ser Val Thr Ser Val Arg Arg Ser Gly Val Gly Ala Ser Pro
217
219 Gly Phe Gly Ala Gly Gly Ser Tyr Ser Phe Ser Ser Ser Met Gly
220
         50
                              55
222 Gly Gly Tyr Gly Ser Gly Leu Gly Gly Gly Leu Gly Gly Met Gly
                         70
                                              75
225 Phe Arg Cys Gly Leu Pro Ile Thr Ala Val Thr Val Asn Asn Leu Leu
226
228 Ala Pro Leu Asn Leu Glu Ile Asp Pro Thr Ile Ala Val Arg Thr Ser
                100 ·
                                     105
                                                         110
229
231 Glu Lys Glu Gln Ile Lys Thr Phe Asn Asn Arg Phe Ala Phe Leu Ile
                                120
            115
232
234 Asp Lys Val Arg Phe Leu Glu Asn Lys Met Leu Glu Thr Lys Trp Ser
                            135
                                                 140
        130
237 Leu Leu Glu Thr Thr Thr Arg Ser Asn Ile Asp Ala Met Phe Glu Ala
                                             155
238 145
240 Tyr Ile Ser Asn Leu Arg Arg Leu Asp Gly Leu Gly Asn Glu Lys Met
                                         170
                    165.
243 Lys Leu Glu Gly Glu Leu Lys Asn Met Gln Gly Leu Val Glu Asp Phe
                180
244
246 Lys Asn Lys Tyr Glu Asp Glu Ile Asn Lys Arg Ala Ser Val Glu Asn
                                 200
            195
249 Glu Phe Val Leu Leu Lys Lys Asp Val Asp Ala Ala Tyr Met Asn Lys
                            215
252 Val Glu Leu Glu Ala Lys Val Asp Ala Leu Asp Glu Ile Asn Phe Leu
                        230
                                             235
255 Arg Ala Val Tyr Glu Ala Glu Leu Arg Glu Leu Gln Ser Ile Lys Asp
                                         250
                    245
256
258 Thr Ser Val Val Val Glu Met Asp Asn Ser Arg Asn Leu Asp Met Asp
                                     265
                260
261 Ser Ile Val Ala Glu Val Arg Ala Gln Tyr Glu Asp Ile Ala Asn Arg
                                 280
264 Ser Arg Ala Glu Ala Glu Ser Trp Tyr Lys Lys Phe Glu Glu Met Gln
265
        290
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/605,708

DATE: 03/25/2004
TIME: 09:07:31

Input Set : D:\GLOF007USC1.txt

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267 Ser Thr Ala Gly Gln Tyr Gly Asp Asp Leu Arg Ser Thr Lys Ala Glu
270 Ile Ala Glu Leu Asn Arg Met Ile Ala Arg Leu Asn Glu Ile Asp Ala
                    325
                                        330
273 Val Lys Ala Arg Ala Asn Leu Glu Ala Gln Ile Ala Glu Ala Glu Glu
               340<sup>°</sup>
                                    345
276 Arg Gly Glu Leu Ala Val Lys Asp Ala Lys Leu Arg Ile Arg Glu Leu
                                360
           355
279 Glu Glu Ala Leu Gln Arg Ala Lys Asp Met Ala Arg Gln Val Arg Glu
                                                 380
                            375
        370
282 Tyr Gln Glu Leu Met Asn Val Lys Leu Ala Leu Asp Ile Glu Ile Ala
                                            395
                        390
285 Thr Tyr Arg Lys Leu Leu Glu Gly Glu Glu Ser Arg Leu Ser Ser Gly
                    405
                                        410
288 Gly Ala Gln Ala Thr Ile His Val Gln Thr Ser Gly Gly Val Ser Ser
                                    425
                420
291 Gly Tyr Gly Gly Ser Gly Ser Gly Phe Gly Tyr Ser Ser Gly Phe Ser
            435
294 Ser Gly Gly Ser Gly Tyr Gly Ser Gly Ser Gly Phe Gly Ser Gly Ser
                            455
297 Gly Tyr Gly Gly Gly Ser Ile Ser Lys Thr Ser Val Thr Thr Val Ser
                                             475
300 Ser Lys Arg Tyr - See pq.
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612 <211> LENGTH: 319
613 <212> TYPE: PRT
614 <213> ORGANISM: Danio rerio
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                 20
620
621 Asp Asn Val Gly Ser Lys Gln Met Gln Thr Ile Arg Leu Ser Leu Arg
623 Gly Lys Ala Val Val Leu Met Gly Lys Asn Thr Met Met Arg Lys Ala
625 Ile Arg Gly His Leu Glu Asn Asn Pro Ala Leu Glu Arg Leu Leu Pro
                                              75
                         70
627 His Ile Arg Gly Asn Val Gly Phe Val Phe Thr Lys Glu Asp Leu Thr
                                          90
                     .85
629 Glu Val Arg Asp Leu Leu Leu Ala Asn Lys Val Pro Ala Ala Arg
                                     105
                100
631 Ala Gly Ala Ile Ala Pro Cys Glu Val Thr Val Pro Ala Gln Asn Thr
                                120
           115
633 Gly Leu Gly Pro Glu Lys Thr Ser Phe Phe Gln Ala Leu Gly Ile Thr
                            135
635 Thr Lys Ile Ser Arg Gly Thr Ile Glu Ile Leu Ser Asp Val. Gln Leu
                                             155
637 Ile Lys Pro Gly Asp Lys Val Gly Ala Ser Glu Ala Thr Leu Leu Asn
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RAW SEQUENCE LISTING DATE: 03/25/2004 PATENT APPLICATION: US/10/605,708 TIME: 09:07:31

Input Set : D:\GLOF007USC1.txt

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170
638
639 Met Leu Asn Met Leu Asn Ile Ser Pro Phe Ser Tyr Gly Leu Ile Ile
640 . 180
                                   185
641 Gln Gln Val Tyr Asp Asn Gly Ser Val Tyr Ser Pro Glu Val Leu Asp
                               200
643 Ile Thr Glu Asp Ala Leu His Lys Arg Phe Leu Lys Gly Val Arg Asn
                           215
645 Ile Ala Ser Val Cys Leu Gln Ile Gly Tyr Pro Thr Leu Ala Ser Ile
                                           235
                       230
647 Pro His Thr Ile Ile Asn Gly Tyr Lys Arg Val Leu Ala Val Thr Val
                                       250
                   245
649 Glu Thr Asp Tyr Thr Phe Pro Leu Ala Glu Lys Val Lys Ala Tyr Leu
650 260 265
651 Ala Asp Pro Thr Ala Phe Ala Val Ala Ala Pro Val Ala Ala Ala Thr
                               280
652 275
653 Glu Gln Lys Ser Ala Ala Pro Ala Ala Lys Glu Glu Ala Pro Lys Glu
                           295
655 Asp Ser Glu Glu Ser Asp Glu Asp Met Gly Phe Gly Leu Phe Asp
                       310
1130 <210> SEQ ID NO: 22
1131 <211> LENGTH: 2054
1132 <212> TYPE: DNA
1133 <213> ORGANISM: Danio rerio
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1136 <221> NAME/KEY: TATA signal
1137 <222> LOCATION: (1983)..(1989)
1139 <220> FEATURE:
1140 <221> NAME/KEY: enhancer
1141 <222> LOCATION: (142)..(148)
1142 <223> OTHER INFORMATION: E-box, canntg
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1146 <222> LOCATION: (452)..(457)
1147 <223> OTHER INFORMATION: (<223)E-box, canntg
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1152 <223> OTHER INFORMATION: E-box, canntg
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1155 <221> NAME/KEY: enhancer
1156 <222> LOCATION: (1278)..(1283)
1157 <223> OTHER INFORMATION: E-box, canntg
1159 <220> FEATURE:
1160 <221> NAME/KEY: enhancer
1161 <222> LOCATION: (1362)..(1367)
1162 <223> OTHER INFORMATION: E-box, canntg
1164 <220> FEATURE:
1165 <221> NAME/KEY: enhancer
1166 <222> LOCATION: (1385)..(1390)
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DATE: 03/25/2004

TIME: 09:07:31

Input Set : D:\GLOF007USC1.txt Output Set: N:\CRF4\03252004\J605708.raw 1167 <223> OTHER INFORMATION: E-box, canntg 1169 <220> FEATURE: 1170 <221> NAME/KEY: enhancer 1171 <222> LOCATION: (523)..(532) 1172 <223> OTHER INFORMATION: Potential MEF2 binding site, yta(w)4tar 1174 <220> FEATURE: 1175 <221> NAME/KEY: enhancer 1176 <222> LOCATION: (606)..(615) 1177 <223> OTHER INFORMATION: Potential MEF2 binding site, yta(w)4tar 1179 <220> FEATURE: 1180 <221> NAME/KEY: enhancer 1181 <222> LOCATION: (697)..(706) 1182 <223> OTHER INFORMATION: Potential MEF2 binding site, yta(w)4tar 1184 <220> FEATURE: 1185 <221> NAME/KEY: enhancer 1186 <222> LOCATION: (1490)..(1499) 1187 <223> OTHER INFORMATION: Potential MEF2 binding site, yta(w)4tar 1189 <220> FEATURE: 1190 <221> NAME/KEY: enhancer 1191 <222> LOCATION: (1640)..(1649) 1192 <223> OTHER INFORMATION: Potential MEF2 binding site, yta(w)4tar 1194 <220> FEATURE: 1195 <221> NAME/KEY: enhancer 1196 <222> LOCATION: (1956)..(1965) 1197 <223> OTHER INFORMATION: Potential MEF2 binding site, yta(w)4tar 1199 <220> FEATURE: 1200 <223> OTHER INFORMATION: Transcription start site at residue 2012 1202 <220> FEATURE: W--> 1203 <221> NAME/KEY: primer bind 1204 <222> LOCATION: (2032)...(2054) 1205 <223> OTHER INFORMATION: M2 1207 <220> FEATURE: W--> 1208 <221> NAME/KEY: misc difference 1209 <222> LOCATION: (2027)..(2054) 1210 <223 OTHER INFORMATION: Identical to the 5' MLC2f cDNA £409>>>22 E--> 1211 1007 1212 tgcatgcctg gcaggtccac tctagaggac tactagtcat atgcgattct gaacaatgct 60 1213 ggaatgagee accaacteat ceagtgtatt accetacact gggaaacace caaatetgte 120 tgttatattt gtgcatatac attagattag aagctgtcac tgcggtggta ccttttcaaa 180 1214 W--> 1215 ttgatacctc aaaagtatat attagtgcct tttaggtact aatatatacc cttgaggttt, 240tcatttggaa aggtaccacc ccagtgacag aaatctggag cttatttaac aaaataactt 300 W--> 1216 tatttatatg ttattgaaaa atattaaata agcaaaacaa tggaaaaaaa ttagttcaaa 360 W--> 1217 atttagettt atttaaattg ttttatettt aatatagetg tttaataaat etgttttgtt 420 W--> 1218 actgagagat ggagaaaaat attcattttc ctgtaattat ctgtttttct aggtactgta 480 W--> 1219 caagcaggag caaaacaagc cgacagactc gggaatgcac aacaaactca aggggggcaa 540 W--> 1220 gagagcaagg agcgctcaag attgtttagc ctgccttccc aaaaaaaaac tgtcttaagc 600 W--> 1221 caaccactca gagggctgta gtgtgctgac cgtgcttgtc cacagggcag cttcccacaa 660 W--> 1222gtgaggtcat aggtcgatcg gcagagagag atgggcatgg ccatgtggac gggtgtggtg 720 W--> 1223 actatactag gaaaagcatt aaaacctatt aagacaccag aacgteetet tatatateag 780 W--> 1224

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/605,708

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/605,708

DATE: 03/25/2004 TIME: 09:07:31

Input Set : D:\GLOF007USC1.txt

Output Set: N:\CRF4\03252004\J605708.raw

								_	
W>	1225	tcattggctc	aaaaatctct	ggattgaaat	atccaacaag	taatcctgca	agataagcca	840	1
W>	1226	ggagggagtt	gcgtcccctt	tagactcagt	atgtgattgt	atgaagctca	aacagtccct	900)
W>	1227	gtggacagct	tgaattcaat	tegecacaga	ttttatgcag	cggatgccca	tccagttgca	960	/
W>	1228	ttttaaatta	atatttttaa	taggaagcta	tcagtacact	ctcagaaata	aatggtccgc	1020	/
W>	1229				aaaaatttta				
W>	1230	tattatggac	ctttaaggta	caaattttta	ctcacgccct	ttatttctga	gagtgaagct	1140	/
W>	1231	atgataacgg	tccaaaaact	actacaccca	caaatttata	aacaggggaa	aatcaagaga	1200	•
w>	1232	atttqtaqqt	tqtaattttt	ttgttgcaat	caattttgtg	actaaaatat	tattttaata	1260	
W>	1233	taaatqcacc	aaaatacatt	gcctatattc	aaaatgggct	gtactcaatt	actctaagca	1320	
W>	1234				acaggatatc				
W>	1235	aacagtgact	gatgaattag	acaagaaaaa	tattttggtc	accacagetg	ttccttatgc	1440	
W>	1236	ctcaaatttc	tcttcatgag	ggtccaacat	catctaaaaa	ctgggaaaaa	ggggtaatta	1500	,
W>	1237				agagagagag				- [
W>	1238				ttcgattagg				1
	1239				ccatcaggat				
W>	1240				ggctacagct				
W>	1241				agacatgcag				
W>	1242	_	_		tttctgagca				
W>	1243		_	_	tacctcatag		_		,
W>	1244				tgggtctata				(
	1245				acgcggcttc				/
		ettagacttc	-			· r_		-	,
15K->	1250 <400>	SEQUENCE:							_
ייט	1250						· · ·	<u></u>	

Tok,
This is
due to
above
error
on previous
page

1250 <210> SEQ ID NO: 23

VARIABLE LOCATION SUMMARY

PATENT APPLICATION: US/10/605,708

DATE: 03/25/2004

TIME: 09:07:32

Input Set : D:\GLOF007USC1.txt

Output Set: N:\CRF4\03252004\J605708.raw

Use of n's or Xaa's (NEW RULES): ERNOR Explanation: 7 Use of n's and/or Xaa's have been detected in the Sequence Listing. Use of <220> to <223> is MANDATORY if n's or Xaa's are present. in <220> to <223> section, please explain location of n or Xaa, and which

residue n or Xaa represents.

Seq#:17; N Pos. 10

10/605,708 Page 10

VERIFICATION SUMMARYDATE: 03/25/2004PATENT APPLICATION: US/10/605,708TIME: 09:07:32

Input Set : D:\GLOF007USC1.txt

```
L:13 M:270 C: Current Application Number differs, Replaced Application Number
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:31 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:1
L:36 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:1
L:41 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:1
L:52 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:56 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:60 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:65 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:67 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:71 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:73 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:75 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:77 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:79 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:83 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:87 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:91 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:95 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:97 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:12
L:99 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:103 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:105 M:320 E; (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:107 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:109 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:12
L:111 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:115 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:117 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:2
L:119 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:123 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:125 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:127 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:129 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:130 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1
L:131 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:133 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:34
L:134 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:2
L:135 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:137 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:139 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:141 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:16
L:142 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1
L:143 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:145 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:147 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:151 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:153 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:154 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:3
```

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/605,708

DATE: 03/25/2004 TIME: 09:07:32

Input Set : D:\GLOF007USC1.txt

```
L:155 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:159 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:163 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:167 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:171 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:300 M:252 E: No. of Seq. differs, <211> LENGTH:Input:498 Found:484 SEQ:21
L:313 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:3
L:318 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:3
L:323 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:3
L:508 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:5
L:513 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:5
L:606 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:5
L:616 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:6 differs:2 4
L:665 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:7
L:669 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:7
L:674 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:7
L:724 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEO ID#:8
L:728 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:8
L:733 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:8
L:771 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:9
L:850 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:11
L:855 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:11
L:873 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:12
L:891 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:13
L:896 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:13
L:927 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:15
L:932 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:15
L:966 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:17
L:966 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:17
L:966 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:1005 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:20
L:1010 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:20
L:1015 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:20
L:1019 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:20
L:1068 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:1136 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:22
L:1203 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:22
L:1208 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:22
L:1211 M:250 E: Invalid Numeric Identifier, INVALID IDENTIFIER V
L:1215 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1216 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1217 M:259 W: Allowed number of lines exceeded; <223> Other Information:
L:1218 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1219 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1220 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1221 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1222 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1223 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1224 M:259 W: Allowed number of lines exceeded, <223> Other Information:
```

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/605,708

DATE: 03/25/2004 TIME: 09:07:32

Input Set : D:\GLOF007USC1.txt

```
1:1225 M:259 W: Allowed number of lines exceeded, <223> Other Information:
:1226 M:259 W: Allowed number of lines exceeded, <223> Other Information:
J:1227 M:259 W: Allowed number of lines exceeded, <223> Other Information:
1:1228 M:259 W: Allowed number of lines exceeded, <223> Other Information:
1:1229 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1230 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1231 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1232 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1233 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1234 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1235 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1236 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1237 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1238 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1239 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1240 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1241 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1242 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1243 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1244 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1245 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1246 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1250 M:200 E: Mandatory Header Field missing, <400> is required.
L:1250 M:301 E: (44) No Sequence Data was Shown, SEQ ID:22
L:1250 M:252 E: No. of Seq. differs, <211> LENGTH: Input:2054 Found:0 SEQ:22
L:1250 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQ ID NO:23
L:17 M:203 (E) No. of Seq. differs, <160> Number Of Sequences:Input (24) Counted (23)
```